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A CASE OF COMPOUND FRACTURE OF THE FEMUR TREATED
WITHOUT SPLINTS.

[Read, and the patient exhibited, to the Norfolk (Mass.) District Medical Society, November 14th, 1866, by
SILAS E. STONE, M.D., of Walpole.]

A BOY, C. P., aged 14 years, while playing at the railroad station, fell across the track as a car was being backed up by the engine. The train, going at slow speed, stopped just as the first wheel of the car struck the thigh, not having passed over it, and there remained until the car was pushed off. He was taken home, and seen by my father and myself within half an hour.

On examination, the left thigh was found to be very much injured, the soft tissues crushed, and the femur fractured at the junction of the upper and middle thirds of the shaft. Communicating with the fracture was an opening through the skin, on the inner aspect of the thigh, of sufficient size to admit the little finger, through which was some oozing of blood, but no great hæmorrhage. There was no pulsation discoverable below the injury. The foot and leg were cool. The patient's countenance was pinched and anxious, though he did not complain, except when disturbed by the examination. Shock to general system not very severe, considering the extent of the injury. Fearing, from the absence of pulsations in the posterior tibial and dorsalis pedis arteries, that the femoral had been injured, it was determined to wait till reaction had taken place before deciding how to proceed.

The next morning Dr. Monroe, of Medway, saw the case with my father and myself. The limb was found to have recovered its warmth, and the circulation was restored. A free incision was made, enlarging the previous opening, and the bone examined. There proved to be an oblique fracture, the fragments very sharp, but without comminution. The points of bone were removed by bone-cutters, the limb laid on pillows, and ice applied.

In addition to the injury described, the right foot was injured, and four of the metatarsal bones were comminuted. During the treatment of the foot nothing occurred worthy of note. Ice and ice-

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water were applied for the first few days and gradually dropped, when nothing except the support of a pillow was used.

About ten days from receipt of injury, great pain was complained of about the lower part of thigh and knee, and a large abscess formed, which discharged through previous opening.

From Dec. 27th till Jan. 24th, the limb was gently supported, with no extension worthy the name. At that time the wounds were granulating well, and had ceased to discharge sloughs, and the suppuration had diminished. On January 24th, a five-pound flat iron was hung over the foot-board of the bed, being attached to the leg the usual way, by adhesive straps and a bandage. An attempt was made to use perinæum-straps for counter-extension, but they created so much irritation that they were abandoned, and the foot of the bed was raised, so as to make use of the weight of the body for counter-extension. In a few days the weight was increased to seven pounds, and at the end of the week to twelve pounds, which was maintained till the 17th of February, when I noted the following:—

Taking off extension, I find the bone about an inch shortened. The leg is straight, and promises to be useful; the ulcer resulting from the incision, about the size of a silver half-dollar.

From this time he steadily improved, and is now able to walk, run and jump as well as most other boys of his age, and has no perceptible limp or trouble in walking.

HYDROSTATIC ATOMIZER, OR "EXSUFFLATOR."

[Read before the Norfolk (Mass.) District Medical Society, November 14th, 1866, by G. J. ARNOLD, M.D., of Roxbury.]

SINCE fluids were first atomized for local anæsthesia, various more or less perfect methods have been adopted for the purpose. The more common apparatus consists of India-rubber bulbs, so arranged that while one acts as a bellows the other is designed by its elasticity to keep up a constant and equable pressure. Although excellent in theory, practically it frequently disappoints; for besides other defects, it requires an assistant, and it is almost impossible for one person to keep up an uniform current for more than one or two moments, on account of the extreme fatigue to the muscles of the hand in working it. Steam has been used, but of course is not always available, and has its obvious disadvantages. The hand air or force pump has been employed, but this also necessitates an assistant, even for the slightest operation. To obviate these and other defects, hydrostatic pressure* has been resorted to, and apparently with most satisfactory results.

* Suggested by Mr. C. H. Hudson, of Roxbury, with whose co-operation the apparatus described in this paper was, after considerable experimentation, finally adopted.

The apparatus consists of two closed cylindrical vessels (Nos. 1 and 2), each capable of holding one or more gallons of water. On the side of each, close to the bottom, is a short tube (*a* and *a'*), with an aperture not exceeding five eighths of an inch in diameter. At the top of each is a stop-cock (*c* and *c'*) of one eighth of an inch delivery. These apertures may be varied in size, according to the size of the vessels. The stop-cocks being closed, vessel No. 1 is filled with water. The two vessels are then connected by a flexible tube (*a— a'*), the larger aperture of the one with the larger aperture of the other. The atomizer (*b*) is connected by means of a small flexible tube with the stop-cock (*c'*) of the empty or air-vessel, No. 2. Elevate the vessel of water (No. 1) and open both cocks; the water will of course displace the air in vessel No. 2, and force it through the atomizer. Sufficient pressure is secured by an elevation of ten feet, and the height of an ordinary room answers very well. When the air has been entirely displaced in vessel No. 2, change the atomizer tube from No. 2 to No. 1, reverse the position of the vessels, and the fountain will be renewed without the escape of a drop of water. The principle here involved is familiar to all.



In houses supplied with aqueduct water, the water-tube of the apparatus (*a— a'*) may be connected with a hydrant, and thus one of the vessels be dispensed with—the air-vessel only being retained.

All the effects of rhigolene, or concentrated ether, are secured by this apparatus. With rhigolene, the thermometer has been reduced from 72° above to 10° below zero, Fahrenheit, in ten seconds.

The following are some of its advantages:—

1. By it a continuous, uniform and equable current can be obtained at any time.
2. Two or more atomizers can be employed at the same time. This is important where it is desirable to operate on a large surface at once.
3. In an office, the whole apparatus can be constantly ready for use at the shortest notice.
4. The current can be graduated to a nicety with regard to force, and be continued as long as required.
5. It obviates the necessity of skilled assistants, without imposing upon the surgeon the distracting labor of manipulating the apparatus when his attention is required in the more important processes of an operation.

ON THE PRACTICAL USES OF THE LARYNGOSCOPE AND RHINOSCOPE IN DIAGNOSIS.

By EPHRAIM CUTTER, M.D., BOSTON.

[Read before the Maine State Medical Society at Portland, June, 1866, and communicated for the Boston Medical and Surgical Journal.—Concluded from page 378.]

HAVING thus given an account of my own normal posterior nares, the pathological diagnosis of rhinoscopy may be best illustrated by a few cases from my note-book.

CASE XIX.—April 28th, 1866. Miss C. A. B., 18 years of age. Complains of catarrh. Thinks it congenital. Has lost the sense of smell for most substances, save camphor and cologne at times. Breath of nostrils exceedingly offensive sometimes, at others less so. Cannot remember when she was free from the disagreeable odor. Has droppings from the posterior nares; discharges frequent, thick, viscid, and green colored. Pain over both eyebrows and at the top of head. Eyesight sometimes affected, and the tears run over the cheek. The rhinoscope revealed a golden-colored deposit covering the turbinated bones of both sides. At subsequent examinations it appeared green, completely investing the bones in question. Anterior rhinoscopy revealed the existence of the same colored deposit. There was a stenosis and asymmetry on the right side, the middle turbinated bone being elongated and bent so as to be quite parallel to the vomer; so blockading the passage that catheterization of the right Eustachian orifice by the ordinary process would be impossible.

CASE XX.—May 1st, 1866. Mr. W. A. A., of Chicago, Ill., 26 years of age, has had trouble with his nose for seven years, consisting of an unusual flow of mucus and constant snuffling, enough to be troublesome. Exposure to cold air or water usually starts the secretion. No offensive odor.

Rhinoscopy.—Eustachian orifices normal. A slight ulceration on the upper and inner faces of the vomer, indicated by a roughness and ground-glass appearance. Anteriorly, the mucous membrane was found reddened and tender.

CASE XXI.—Feb. 16th, 1866. Miss T., 18 years of age. Complaint is of ozæna, with extremely foetid discharges of muco-purulent and greenish-yellow existing for a long time.

Posterior Rhinoscopy.—Orifices of both Eustachian tubes normal. Middle and lower thirds of the left side of vomer covered with a rough, gold-yellow covered deposit. Same deposit on the left turbinated bones, and at the dome of the post-pharyngo-nasal space.

CASE XXII.—January 25th, 1866. B. S. had polypus removed from the left nostril in December, 1865. Complains as if there were more left behind. Deaf on the right side. Air passes with difficulty through the right nostril.

Posterior Rhinoscopy.—Orifice of the right Eustachian tube partly

closed. A glistening, diaphanous, ovoid body occupied the right upper nasal tract, completely blocking it up. Probably another polypus.

CASE XXIII.—January 23d, 1866. Mr. E. B. Complains of catarrh and deafness in right ear.

Physical Appearances, by Rhinoscopy.—Anterior view, nothing abnormal. Posterior view, vomer normal. The mucous membrane covering the turbinated bones abnormally pale, ashy white, exsanguine and swollen. The mucous membrane covering the right superior turbinated bone is œdematous and glistening, appearing like a mucous polypus. The mucous membrane about the right Eustachian tube is swollen, covering the anterior portion, so that only one third of its calibre is open. The left Eustachian orifice is normal.

CASE XXIV.—January 19th, 1866. Mr. S. M. B., Boston, furrier, 40 years of age; a feeble man. Never felt well in his nose. Always had the catarrh.

Pharyngoscopy.—Uvula thickened, enlarged, hard to the feel, reddened at the base, which redness is prolonged up into the soft palate.

Posterior Rhinoscopy.—The upper post-pharyngo-nasal space is smaller than usual, encroached upon by thickening of the mucous membrane, which on both sides covers the orifices of the Eustachian tubes two thirds of their diameter. The vomer is natural, and so are the turbinated bones, but the nares are smaller than usual—one third smaller than my own. In this case, a swelling or turgescence of the mucous membrane covering the turbinated bones, which ordinarily occurs and would not be noticed, becomes abnormal by mechanically closing the too small passages. Beyond what has been indicated, there is no solution of continuity, no abnormal growth, no malformation.

CASE XXV.—November, 1865. Patient of Prof. S. D. Gross, of Philadelphia, at his office; a young man, complaining of total stoppage of right nostril. Posterior rhinoscopy revealed a globular, wrinkled, whitish-yellow growth, occluding the whole posterior nasal opening on the right side.

CASE XXVI.—A young man, fresh from the war, who had long had difficulty with his nose and throat, said that his military regimen had cured his throat, but not his nose. His complaint was of a stoppage of the passage of air through the nostrils, which did not exist all the time, but which came particularly on exposure to the vicissitudes of the weather. On examination of the posterior nares they were found abnormally small—certainly one third smaller than my own. The mucous membrane presented no abnormal feature, except that it obstructed the passage, because, that while the nasal openings were small, the turbinated bones were of the normal size. This disparity produced effects similar to those of the last case, viz., that when the mucous membrane took on a natural turgescence, in-

duced by some condition of the atmosphere (and which I have shown by auto-rhinoscopy is a natural condition), this swelling of erectile tissue blockades the passage.

This conclusion was further sustained by a therapeutical diagnosis; for, by the administration, by Thudichum's method, of astringent solutions, the trouble was almost entirely obviated for a time.

CASE XXVII.—A young man, 17 years of age, complained of what he called catarrh, referring to symptoms of occlusion, indicated by thickness of speech, inability to breathe through the nostrils, having to swallow his food quick, as if the food were forced down by the breath. Has total deafness on the right side, partial deafness on the left. When he lies on the left side he is totally deaf. Smelling deficient; efficient only after unusual inspiratory efforts. Cannot breathe through the nose. Makes a great noise when he sleeps. Chest pigeon-breasted; slightly wavy inspiration over the right and left upper third front.

Inspection of Throat.—Both tonsils enlarged—right more than left. Enlarged follicles on post-pharyngeal wall. Epiglottis, vocal cords and arytenoids normal.

Rhinoscopy.—A cauliflower, pale-red growth was revealed, filling up the whole posterior nares and obliterating the natural appearance of the parts. On palpation with the right forefinger, a firm, large, cartilaginous body was felt, filling up the post-pharyngo-nasal space, and apparently continuous with the upper part of the soft palate. It bled on palpation.

Diagnosis afterwards confirmed by repeated examinations.

CASE XXVIII.—A young man, clerk in a country drug store, 18 years of age, has for six or seven years had what he termed a "catarrh difficulty," namely, the dropping down into the back part of the mouth of a viscid, greenish-yellow, exceedingly unpleasant and offensive matter; sometimes it affects his voice.

Posterior rhinoscopic examination showed a large ulceration on the post-pharyngeal wall, directly behind the soft palate, occupying one half of its surface, and extending upwards to the dome. The following physical appearances were called ulceration:—A thick deposit of greenish-yellow, viscid matter, which, washed off, disclosed a base of a roughened, eroded, whitish aspect. The vomer and turbinated bones were normal, with this physiological difference from my own, namely, that the middle turbinated bones were in the form of elongated, scroll-like processes, that terminated in a club-shaped expansion, while that of my own is hemispheroidal.

In conclusion, the writer would append the following programme of his physiological demonstrations:—

I. By *auto-rhinoscopy*, the vomer, turbinated bones, Eustachian orifices, Rosenmüller's fossæ and the post-pharyngo-nasal wall, with the effects of insufflation of aromatic substances.

II. By *auto-laryngoscopy*, the parts of the pharynx, larynx and

trachea in passivity and in action. Also during either of the following physiological states:—

(a) Phonation of vowel sounds.

(b) Respiration.

(c) Crying.

(d) Cachinnation.

(e) Cantation, including—

(1) The movements of the vocal cords in singing the diatonic and chromatic scales.

(2) Falsetto voice.

(3) The movements in trilling.

(4) The physiological movements in singing, *throughout*, tenor of the Messiah, or the air "In Native Worth," from the oratorio of solos, viz., the recitative "Comfort ye my People," from the oratorio of the Creation.

III. Photographs of the living epiglottis *in situ naturali*, and of the living vocal cords *in situ naturali*, may be had of the artist, Mr. Frank W. Hardy, A.B., Bangor, Me., at a moderate price—\$1.00 for the set.

DR. VALERJ'S INTRODUCTORY LECTURE.

(Concluded from page 406.)

BUT though matters thus stand, that is, medicine and the office of the physician being reduced to these general terms (namely, the former to the art of helping nature, the latter to the minister of the aid), I would not have you imagine that it is easy to practise art at the sick bed. It is most arduous, my dear young friends, soon to be my distinguished colleagues, and the cure of patients undertaken in the sense, and within the limits above specified, is often a work of the greatest difficulty! I would hazard the assertion that our history contains few physicians who were able to succeed easily in this matter. Ah! how often have we been embarrassed in making out whether that state of vigor or of languor in which nature appears to us, be absolute or ephemeral, if that tumult or disorder of her motions be transient or permanent, deserving, therefore, to be, or not to be appeased and reduced to order, with the when and how, &c. Most simple and clear is the classic aphorism of the Father of medicine, by which he reduces to three principal heads the action of medicine in aiding nature. "*Strengthen her*," he says, "*if she be too weak or slow; temper, moderate her, if too strong and violent; direct and calm her, if she be perturbed in her action: always, however, seconding her, never striving against.*" But in its simplicity, what great practical tact and difficulty does not this doctrine contain! And what discrimination, what consummate experience are required to determine clearly those very numerous cases in which the healing powers being

sufficient of themselves, render all intervention useless, nay hurtful! Nor do we encounter less embarrassment in applying such a great number of medicines: even a nurse, a pharmacist's lad, can tell us that such a substance causes vomiting, another induces sleep, promotes perspiration, expectoration, &c. &c.; but sometimes quite different is the effect of them on such an individual, for it is a difficult matter, even for an expert practitioner, to determine the choice of the remedy and the time it should be administered, and to assure himself with certainty that such shall be the effect produced; "*Est enim haec ars conjecturalis*," writes Celsus, "*neque respondet ei plerumque conjectura, sed etiam experientia. Et interdum non febris, non cibus, non somnus, non purgatio, &c. &c. Subsequitur, sicut assuevit.*" I will but mention to you the obscurity which the diagnosis of various maladies presents, the *occasio præceps* of coming to nature's aid in various others, the idiosyncrasies of the patients, &c., and numerous other obstacles; all which increase the difficulty of our ministry, and render it in point of fact, when we consider the shortness of life, too difficult and extensive to be known thoroughly. "*Ars longa, vita brevis.*"

But I should fear that I had not fully exhausted the subject of this inaugural lecture to clinical practice, were I not to state what you must have known already, namely, that the principles which I have expounded as lucidly and regularly as my weak ability would permit, are identical with those which constitute the doctrine of Hippocrates. This celebrated physician, *medicorum Romulus, cui nec ætas prisca vidit parem in re medica nec videbit futura*, was the first who based medicine on the unshakable foundation of the healing power of nature. Endowed with a genius born for this art, with an ability and mind the most exquisite that ever any man possessed for observation, it was not long before he perceived, from following the natural course of diseases, that nature is their genuine and efficacious curer, and pronounced the ever memorable and classic words, "*Natura morbis medetur.*" Astonished, too, by the surprising order and means wherewith she operates towards that end, he adds, "*Natura ipsa sibi per se, non ex consilio motiones ad actiones obeundas invenit, a nullo quidem edocta, extraque disciplinam ea quæ conveniunt efficit.*" But notwithstanding such high praise, he did not make of her a reasonable and intelligent being, but recognized her to be a necessary force, subject to the wondrous laws which the All-wise Maker of the universe imposed upon every created being specially; hence the organism, says he, knows not, sees not what is doing, knows not what wills, acts by divine necessity, and its operations tend towards the object predetermined. "*Corpora, quæ faciunt non sciunt, quæ vero faciunt scire sibi videntur, et quæ vident non cognosunt; attamen omnia in ipsis fiunt per divinam necessitatem et quæ volunt, et quæ non volunt; unum quodque destinatum fatum explent.*" The body and each of its parts fulfil this destiny, being so intimately connected that one cannot be said more

properly to be the beginning than another, while they form a real economy where everything conspires and concurs towards the common weal. "*Corporis nullum est principium, sed omnes partes acque principium et finis ; confluxio una, conspiratio una, consentientia omnia.*" Hippocrates, ever an acute observer, and schooled by positive experience, perceived that nature does not always suffice of herself, but that medicine discovers and possesses certain aids capable of stimulating her in discharging whatever is hurtful and morbose, as likewise to force her to manifest to the physician what she stands in need of and what she requires of him. "*Quando natura non sponte excernenda dimittit, medicina necessitates, ac vires invenit, quibus natura coactu indemnus dimittat, sive excernat, nam stimulata monstrat medentibus, quae sint facienda.*" And not to lengthen our discourse with other passages, with which this Romulus of physicians has called this art into existence, and that too quite on a sudden (with a privilege denied by Providence to the other arts and sciences, which, formed by degrees, were gradually developed and perfected), all in a moment rendered it most conspicuous and useful, ever inquiring and scrutinizing, with impartial vision, and mind intent on clearly seeing, conceiving and judging of the course and phenomena of diseases, observed the rapid or gradual crises with which they terminate, the days on which they are more likely to occur, whether as harbingers of health or death, expounded the doctrine of these crises, and of the critical days, augmenting it with a treatise on Semeiotics as practical as is requisite for the prognosis and cure of diseases; he described a great number of maladies with matchless precision, deducing therefrom a most valuable collection of practical aphorisms; and after all this, as a consequence of so many observations and studies, concluded, with a practical knowledge which never can be too highly admired, that the medical art consists definitely of these three things—the *disease*, the *nature* or strength of the patient, and the *physician*; the physician is the minister of this art; on him it devolves to direct against the malady the powers of the patient and his own. "*Artem tria ista circumberibunt, morbus aeger et medicus, qui artis est administer, aegrumque oportet una cum morbo reluctari.*"

I have thus explained to you what medicine is, as I intend teaching it you at the patient's bed, and may God grant that, for their happiness and yours, I may succeed in this very arduous task. Henry Cope wrote to Prince Lionel, that he would never have wished to be a physician save by following the doctrine of Hippocrates: "*Nollem esse medicus nisi hippocraticus.*" Such should be the resolution of us all, being sure, in doing so, to follow that doctrine which, during the long period of more than twenty-four centuries, when forgotten or neglected, eclipsed the science and caused the art to be pernicious rather than beneficial to patients, whilst, when attended and followed, was and will always be their safeguard and the true light which illumines the physician in the mysterious labyrinth

of life, and our diseased organism. Do not fancy that the medicine of Hippocrates is ancient and circumscribed; on the contrary, it is ever recent like truth, which never grows old, and so comprehensive as to embrace every progress that must daily and necessarily enlarge our knowledge. If Hippocrates, as was natural, could not perceive everything, he has ably taught others to *see all and see clearly*. His doctrine is as a pyramid which, with the result of our studies and discoveries, we may build higher and still more high, on condition, however, of not touching the smallest stone of its foundation, for otherwise all would fall to ruin, and our medical system would become nothing more (as history proves) than an unwieldy mass of conjectures, an application of erroneous maxims, fatal to diseased humanity.

I am fully convinced, that by practising now-a-days this art according to the dictates of Hippocrates, dictates which, as they were lawfully deduced from the observation of a great genius, have been followed and consecrated by the experience of the best physicians of every age and country, you will not succeed in contenting all your patients, nor in winning the gratitude and esteem of a considerable number among them. And what of that? Shall we desert the truth in such an important matter as the curing of diseases, to embrace the error of this or that system, which best suits the genius of the multitude, or the taste of the age? Let us ever remember, as a moral balm in the afflictions to which our sound method of curing might expose us, that our masters, even Hippocrates, Galenus, Sydenham, and so many other noted practitioners, had also to suffer on this score. A proof of this may be found in several biographical anecdotes and utterances of lamentation, to be met in their works. "*Ce n'est pas la médecine, mais le medecin, qui fait le succès à la cour!*" exclaims one subtle historian, alluding to the incapacity of a court-physician of his time; and Zimmerman, in his valuable treatise on "Experience in Medicine," relates, that in a large city where there was a host of physicians, the most stupid among them was the most highly esteemed, so much so that fifty or sixty patients presented themselves to him every morning; but that after having examined them all, he was wont to arrange them in four classes, to the first of which he prescribed a purge, to the second bloodletting, to the third a clyster, to the fourth a change of air. Now we too shall witness similar facts, and must bear the same painful consequences; for now and then it happens, that a new and strange system of medicine is introduced and practised, and the most recent destroys the preceding, and becomes more glorified. Really, a few years ago, all diseases were cured, or rather ill-treated, by excessive purging and bloodletting; now-a-days people are endeavoring to do the same by means of hydrotherapy, homœopathy, and by systematically abstaining from any bleeding in genuine inflammation of the lungs. But you, in the meantime, will say, that these errors triumph; that Priessnitz,

Hahnemann, &c., have still their followers, and these latter their patients. Ah! let not that surprise, and much less entice you to follow any other path than that which I have proved to be the most conformable with experience, the most beneficial, nay, exclusively so, to humanity. The "green ass," in the fable of Gellert,* will always have a great number of followers; and if to-day, at this very hour, Cicero proceeded to the piazza of St. Peter's to deliver one of his renowned orations, and Cagliostro to the "Piazza del Popolo" to display his impostures, you would see that Cicero would be honored with but a small audience and chary applause, Cagliostro by a concourse of people frantically bent on admiring him. And what, gentlemen, is the true reason of all this? Here it is for you, in two words. The *five senses* are common to all, *good sense* the privilege only of a few; for which reason the great orator would have been understood and applauded but by a small number, the celebrated impostor by a large multitude.

Solaced, therefore, by this truth, though hard it be, let us undertake, with alacrity, the study of this most difficult art, and approaching patients, let us ever bear in mind, that following in the steps of Hippocrates, we are not here, properly speaking, to cure them, but to aid their respective natures in doing so. "*Medicus curat, natura sanat.*"

ON THE MUTUAL ACTION OF THE ELEMENTS OF SOLUBLE SALTS
WITHOUT AND WITHIN THE ANIMAL ECONOMY.

By M. MELSSENS.

THE experiments already made by the author, he considers, justify him in formulating the following proposition:—

Two soluble salts which are without apparent mutual action, and which may be given separately to animals without producing any disturbance in the body, may, when administered together, act as a poison:—

The two salts more especially experimented with by the author are, chlorate of potash and iodide of potassium. These two salts in solution together crystallize separately under whatever conditions they may be placed. Their mixture in solution in equivalent proportions undergoes no mutual decomposition either at the ordinary temperature, on boiling, or under the pressure of ten atmospheres at 185° C. It can be proved by means of sulphydric acid that no iodate of potash is formed.

But when the two salts are heated together in the dry state, decomposition takes place at the point of fusion, and iodate of potash is formed.

* A person more knave than fool painted an ass all green except the legs, which he colored red. Indescribable was the astonishment of the people who flocked in crowds to behold the portentous animal.

When a certain quantity of mineral acid is added to a mixed solution of the two salts, iodine is set at liberty, and the solution behaves towards sulphydric acid as though iodic acid had been produced.

When the mixed solutions are submitted to electrolysis, hydrogen is disengaged at the positive pole, and the liquor appears to contain both iodide and iodate.*

We come next to the effects of the before-mentioned salts on animals. Seven grains of chlorate of potash were given to a bitch weighing eleven kilos. every day for a month; the animal did not at all suffer. Afterwards, five grammes of iodide of potassium were given daily for the same period. The animal suffered a little during the first days, but at the end of the month was perfectly well.

If, on the contrary, we administer to a dog daily seven grammes of a mixture of iodide of potassium and chlorate of potash in equivalent proportions, the animal languishes and dies about the twenty-fifth or twenty-eighth day. On commencing the experiment one dog weighed 16.5 kilos.; at the moment of its death it weighed only 11.5 kilos. The experiment repeated on several dogs gave similar results. Death often supervened about the fifth day.

Post-mortem examinations revealed changes similar to those observed by the author when iodate of potash was administered, especially in the liver and intestines, but it is necessary to make a series of comparative experiments with the iodate, free iodine, and mixtures of the two salts.

The author has shown, in previous memoirs, that the iodate of potash acts as a poison. This salt, given in doses of one or two grammes daily, will kill a small dog in a few days. A mixture of the two salts cannot be so active as the iodate, since both unchanged iodide and chlorate may be found in the urine. The author is therefore brought to the conclusion that the mutual action of the two salts in the economy takes place with the greatest facility. It may be supposed that the acids of the stomach and the electrolytic actions which take place in the organism play an important part in bringing about this decomposition. But beyond all hypothesis it is necessary to admit that changes take place in the animal system which cannot be realized in the laboratory under ordinary conditions, or with the assistance of a high temperature, strong acids, or even the electric current.—*Lond. Chem. News*, August 17, 1866, from *Bulletin de la Soc. Chim. de Paris*, July, 1866. Abstract from the *Bull. de l'Acad. Royale de Belgique*, 1866, in *American Journal of Pharmacy*.

* To avoid the action of chlorine, iodine, and oxygen, the author employed retort coke as the positive electrode. The carbon was previously treated with aqua regia, and then ignited in a current of chlorine. The carbon employed in the above experiment was disaggregated, and in part burnt to carbonic oxide and acid, and at the same time a soluble black carbonaceous matter was obtained, similar to the ulmic product which the author obtained by the action of chlorine on the carbon contained in the lungs in *melanosis*.

Bibliographical Notices.

A Treatise on the Practice of Medicine. By GEORGE B. WOOD, M.D., LL.D., President of the College of Physicians of Philadelphia; Emeritus Professor of the Theory and Practice of Medicine in the University of Pennsylvania; one of the Authors of the Dispensatory of the United States of America, &c. Sixth Edition. In two Volumes. Pp. 1984. Philadelphia: J. B. Lippincott & Co. 1866.

EIGHT years have passed since the appearance of the fifth edition of this well-known and highly-valued work, a period within which many and great advances have been made in medicine, so that the year spent by the author exclusively in bringing this treatise up to the present state of science was none too long for such a task. Some of the introductory chapters on general pathology have been modified, in accordance with the views of modern observers, descriptions of a large number of new affections have been introduced in their proper connection, and much new matter relating to special diseases has been inserted in the form of foot-notes. Altogether, two hundred pages have been added to the present edition. The work is too well known and too highly prized throughout the country to need any praise from us. It is a pity, however, that so good a book should appear in so poor a form, for both paper and print are bad.

A Handy-book of Ophthalmic Surgery for the Use of Practitioners. By JOHN Z. LAURENCE, F.R.C.S., Surgeon to the Ophthalmic Hospital, Editor of the Ophthalmic Review, &c. &c., and ROBERT C. MOON, House Surgeon to the Ophthalmic Hospital. With numerous Illustrations. Pp. 191. Philadelphia: Henry C. Lea. 1866.

WE noticed this book at some length but a short time ago, on its appearance in England. The American Edition is an excellent reproduction, and deserves the same favorable notice we gave the former.

A Manual of Medical Jurisprudence. By ALFRED SWAIN TAYLOR, M.D., F.R.S., Professor of Medical Jurisprudence and Chemistry in Guy's Hospital. Sixth American from the Eighth and Revised London Edition, with Notes and References to American Decisions. By CLEMENT B. PENROSE, of the Philadelphia Bar. Pp. 766. Philadelphia: Henry C. Lea. 1866.

THE present edition of this valuable manual is a great improvement on those which have preceded it. Some admirable instruction on the subject of evidence and the duties and responsibilities of medical witnesses has been added by the distinguished author, and some fifty cuts, illustrating chiefly the crystalline forms and microscopic structure of substances used as poisons, inserted. The American Editor has also introduced several chapters from Dr. Taylor's larger work, "The Principles and Practice of Medical Jurisprudence," relating to trichiniasis, sexual formation, insanity as affecting civil responsibility, suicidal mania, and life insurance, &c., which add considerably to its value. Besides this, he has introduced numerous references to cases which have occurred in this country, enclosed in brackets. It makes thus

by far the best guide book in this department of medicine for students and the general practitioner in our language, although of course not containing much of important detail which is to be found in his large work above mentioned, and in his treatise on Poisons. It is published in a very handsome and correct form.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, DECEMBER 27, 1866.

SPECIALTIES—ADDRESS OF THE PRESIDENT OF THE AMERICAN MEDICAL ASSOCIATION.

THE President of the American Medical Association, in his opening address at the last meeting, a copy of which is now before us, presents in his usual energetic manner a statement of his feelings and opinions on the important question of specialties in the practice of medicine. To those gentlemen who have the privilege of intimate relations with him it was pretty well known before that he entertained very positive opinions upon this question, and some may have got the impression that he held rather an extreme position on the side of those opposed to their utility or wisdom. We gather from his address that the chief objections in his mind are rather against *specialists* than *specialties*, rather against the course which some practitioners have adopted who have proposed thus to limit their practice than to the simple circumstance that they have so restricted themselves.

In reading the strong language of sarcasm and contempt with which the President has portrayed the littleness and chicanery of some, who professing thus to limit themselves have made their professions an entering wedge for gaining a hold on patients which they have not hesitated to avail themselves of for extending their sphere of practice to other branches—in his denunciation of the arrogant assumption of superior knowledge by some—his ridicule of the narrow-mindedness of others—the reader cannot but feel that he speaks from personal experience; and every honorable physician must respond most heartily to the sentiments which he utters. But such, it is to be regretted, are not unknown offences among those who do *not* class themselves among so-called specialists. It needs not many years experience in our profession to learn that insinuation or direct claim of superior knowledge or skill, bigotry and one-sidedness of opinion, and cunning management to secure favor, are crying sins by no means unknown the world over, wherever selfishness takes the lead of higher motives in the pursuit of our noble calling.

Passing on from his denunciation of specialists as they sometimes unworthily deport themselves, we find the President presenting fairly the grounds on which special practice is based, and giving his testimony to the great value of such exclusive devotion to certain branches. Physiological researches, ophthalmology, dentistry, obstetrics are instanced as affording illustrations of the good results from such exclusive study. The truth is, this tendency to specialism grows out of

the very necessity of the case. *Non omnia possumus omnes*. As the world grows older, and men grow wiser, they appreciate the more the smallness of their attainments and grow more humble; more ready to see that some of their fellows may be better able by natural gifts or superior opportunities to settle the questions that confound them, and more willing to turn to them for counsel. Common consent, in every community large enough to give a school of experience, singles out certain men as authorities in certain departments of medical practice, without any special profession on their part of particular attention to those departments. It is but a step in advance of this for certain of our brethren to devote themselves from the start to such departments; thus gaining the opportunity of investigation and study which shall specially fit them to be authorities in them. Who can doubt that the opportunities thus brought within the experience of a few must lead to a vastly more valuable result than if scattered among the profession at large!

We cannot conclude these hasty remarks better than by quoting the closing words of Dr. Storer's address, which show that he fully appreciates the force of these considerations, notwithstanding the personal sense which he may have had of the abuses which may sometimes grow out of an unworthy application of them:—

"We would not, then," he says, "discountenance the specialist, as such; we would not speak disparagingly of him; we would neither ridicule nor condemn him; but would cheerfully welcome as a co-laborer to our ranks every well-educated, honorable, honest physician, to whatever portion of our science he may devote his time and his talents. Every atom he can add to our stock of knowledge, every grain he can place upon the mound already raised, shall be appreciated and rejoiced in; and as long as his conduct shall prove him worthy of our esteem, so long may he claim and possess it."

MEDICAL EVIDENCE.

MESSRS. EDITORS.—Will you permit me to make some remarks upon the article in your last number entitled "Medical Evidence." As one of the witnesses called for the defence in the case referred to, I feel that injustice has been done us. We were not asked concerning the probable cause of death. The questions were essentially these:—

1st. Would a child born of a woman who had secondary syphilis during her pregnancy probably inherit the disease?

2d. How would it manifest itself in the child?

3d. Is disease of the eyes, or "sore eyes," one of the marks of inherited syphilis?

4th. Do such children frequently die at a very early period?

5th. What amount of laudanum would be fatal to a child one month old?

The answers to all these questions were such as *every* member of our profession must have given. The counsel for the prosecution did not cross-examine. If he had done so with reference to the third question, it would have appeared that ophthalmia is a common affection of new-born children. I cannot help adding that the remark in the JOURNAL of last week, that "there probably never was a case in which both defendant and plaintiff were not able to obtain from medi-

cal men just such evidence as they required for the interests of their respective sides," is, to say the very least of it, most uncomplimentary to our profession, and unproved in the case referred to, and I must also say that to imply that the medical gentlemen who were called upon to testify for the defence were not qualified to give opinions upon the questions above noted, is a matter of personal judgment too sweeping to be indorsed by the Medical Journal of Boston. X.

We are sorry that our esteemed correspondent should have thus misapplied our meaning in the article in question. The answers to the questions referred to were undoubtedly correct, and such as every physician would have given so far as they went; but although based on general premises, they were asked with reference to the particular case, and the answers were made without any such reference; and these, as we stated before, the jury could not see had no necessary connection with the case on trial, and this disconnection, as our correspondent states, they would have seen, at least in one instance, had the replies been made to the other party. With regard to our introductory remark as to the contradictory character of medical testimony, we also agree with him in considering it uncomplimentary to the profession as a whole, but think that all who have had much experience in medico-legal cases will acknowledge its correctness. As to its connection with the case in question there is none, nor was any ever implied; an inference as unfounded as that which follows with regard to our remark upon the qualification of witnesses. If the writer will read our article again he will see that no injustice was intended towards the distinguished physicians called by the defence, and if he will read a full account of the trial he will learn that medical testimony was given by two persons not members of the Massachusetts Medical Society.

BOSTON, CHRISTMAS EVE, 1868.

MESSRS. EDITORS,—Will you afford me a brief space in your JOURNAL, that I may express my regret at having published in the New York *Medical Record* anything which my friends tell me was calculated to injure Dr. Calvin Ellis, one whom I regarded as a neighbor and a friend, and whom I would not have injured or insulted intentionally. I wish to make all amends in my power, and to persevere in efforts to do so. Without referring to scientific opinions and convictions, I would thus publicly say that I regret having so expressed myself as to injure or cause pain or annoyance to one towards whom I should be sorry to entertain any other feelings than those of kindness and respect.

HORATIO R. STORER.

We comply with the request made by the writer of this letter, and are glad to learn that the reiterated disclaimer by Dr. Storer of any intention to annoy or injure has been accepted by Dr. Ellis.

MESSRS. EDITORS,—Chordée, perhaps the most painful complication of gonorrhœa, is explained by the majority of writers as a simple result of the lack of elasticity in the inflamed urethral membrane. This is a much more plausible explanation than that of muscular spasm, and is supported by a fact which I have never seen mentioned,

but which first suggested itself to me in my own practice, and has been confirmed by further observation. It is this: that the less the difference in the size of the penis when in repose and when in erection, the less the danger of chordée. The fact is of value in prognosis, and, I have no doubt, has occurred to many others before me, but without getting into print.

W. F. MUNROE.

CHOLERA IN LONDON.

SOUTH LONDON, it will be recollected, was still supplied with impure water in 1854 by one company (the Southwark), and it suffered severely in the epidemic of that year. In the field of the other company (Lambeth), the mortality was much reduced, but was not inconsiderable. In 1866 South London was supplied with water by the two companies from the purer sources; the shallow wells were dried by the metropolitan drainage, and the deaths by cholera in all the districts, holding 873,548 people, were not so numerous as the deaths had been in 1854 in a single district. Thus you have these sequences, in the Lambeth field, impure water, 1849, cholera terribly fatal—pure water, 1854, cholera much less fatal; in the Southwark field, impure water in 1849 and in 1854, cholera terribly fatal in both years; in 1866, both fields with pipes interlaced, in South London, supplied with the purer water—mortality from cholera comparatively slight, but sufficient to remind us that the water is not yet perfectly pure.

Cholera had been epidemic in the continental cities since 1865, but London rested secure, expecting to escape with comparative impunity, when lo! in July, the weekly deaths by cholera sprang up from 6 to 14, to 32, to 346, to 904, to 1053, with an unexampled velocity, and threatened to renew all the horrors of the former plagues. The weekly returns showed that multitudes of men, women and children, spread over an area of about ten square miles, were indiscriminately struck down by diarrhoea or cholera.

In East London 3613 people perished in six weeks. The great destruction of life occurred in every district, supplied from the Old Ford reservoirs of one of the eight London companies, and to the same extent nowhere else. These reservoirs are close to the Lea, which is a tidal river, polluted with sewage of West Ham and of East London. In Manchester the water is immediately under the control of the Town Council, and you can know all about the supply; but in London that is not the case, as the water is supplied by private companies on strictly commercial principles. The directors are not bound to tell us precisely what their servants do, and they have not done so; but circumstantial evidence irresistibly shows that polluted water was distributed over all the area of extraordinary mortality during a certain number of days, with the same result as in previous epidemic years. The source of mischief was no sooner pointed out than the plague began rapidly to decline; it appeared to be under control, and the mortality by cholera in East London is now as low as it is in the rest of the metropolis.

When zymotic matter or any impurity is thrown daily into the mains, pipes, butts, houses, and, I may say, bodies of a population, it is irregularly distributed, and requires many successive daily changes to eliminate it; thus, when impure water is supplied for three days

only, it may take thirty days to eliminate it. This may be demonstrated mathematically, and be illustrated by experiment.

I may add that, although the distress from the loss of thousands of children and parents in an epidemic is never wiped away, yet in East London it has been mitigated; the people behaved with courage and patience; they helped each other in danger, and they were helped by enlightened English charity. The Queen herself came to their relief; Mrs. Gladstone, Miss Marsh, Miss Sellon, and Miss Louisa Twining, treading in the steps of Miss Nightingale, administered relief to the sufferers; the Bishops of London and the Lord Mayor upheld the honor of their high office by indefatigable services. The medical men, and, it is right to add, the clergy, nobly did their duty; the local authorities, to a greater extent than they ever did before, carried out the judicious recommendations of the Privy Council. House-to-house visitation was in many cases in use for a time.

By these means, by the exertions of engineers of the companies, and by the early discovery of the source of the terrific mortality in East London, the plague has been stayed; we know how Asiatic cholera can be subdued. In London twenty thousand lives have been saved. This is an achievement of the science of health which reflects some glory on England, and of which all the world will enjoy the advantage. It is due to many years of labor—to the labor of Jameson, Scott, Orton, Balfour, Martin, Parkes, in India; to Sutherland, Smith, Baly, Gull, Simon, and especially to Snow, in England; to the English registration of deaths, which enabled us to demonstrate by several experiments in the largest city of the world, the fatal effects of water tainted by impurities.—*Med. News and Library*, from a paper by Dr. FARR.

Portability and Communicability of Cholera.—We would call the attention of our readers to the following circular from Dr. William Marsden, of Quebec, relating to the Portability and Communicability of Cholera:—

To the Members of the Medical Profession on this Continent.

GENTLEMEN,—Having been unanimously elected delegate, for the third time, to the annual session of the American Medical Association, to be held in Cincinnati, Ohio, on the first Tuesday of May next, by the College of Physicians and Surgeons of Lower Canada, I beg to announce my intention to present a paper to the Association "*On the Infectious Character of Asiatic Cholera, its Portability and Communicability.*" With a desire to render it as full and complete as possible, I shall feel obliged to such members of the profession as may be pleased to furnish me with any facts sustaining these views, that may have come within their knowledge or under their observation, during the recent or any former visitation of the pestilence on this continent. Address, until the first of April next,

"W. MARSDEN, M.D.,
Quebec, Canada East."

Will other medical journals please copy.—W. M.

Cause of Intermittent and Remittent Fevers.—We have received a copy of the *Weekly News and Southern Merchant*, Corinth, Miss., Aug. 4th, 1866, calling attention to an editorial notice that appeared in our

May number, of Dr. Salisbury's article on the "Alleged Discovery of the Cause of Intermittent and Remittent Fevers," published in the *American Journal of the Medical Sciences* for January last. The *News and Merchant* states that "the honor of this grand discovery should be awarded by the medical profession to our old friend and fellow-citizen, Dr. D. B. McFarlane, of this city" (Corinth); that "Dr. M. made this discovery four years ago, and immediately communicated the facts to Prof. Leidy, who engaged at once in the microscopical researches necessary, and is now making investigations for the purpose of bringing forward additional proof; as soon as they are completed, the whole subject will be brought before the medical world."—*Southern Journal of the Medical Sciences*.

Value of Arsenic in Hemorrhoids.—In the March number of this Journal we called the attention of the profession to this new application of arsenic.

We have just received from an intelligent medical friend, of long professional experience, the following note which confirms the statement made by us at that time.

Dear Doctor: Some eight weeks ago I had an attack of hemorrhoids, which so far incapacitated me for any physical exertion that the exercise of carrying the least burden, or even continuous walking for any length of time, would be the cause of great pain and external tumefaction. Having had, within the last twelve years, repeated attacks of the kind, which were only relieved by nature's dangerous method, *suppuration*, or by extensive local depletion by leeches or the lancet, I expected in this instance a like termination. About two weeks ago I concluded to try Fowler's solution, though I must confess with only the slightest degree of faith in its efficacy. I used ten drops of it three times a day. On the third day I felt partially relieved, and four days after was fully restored.

I know the import of the *post hoc propter hoc* fallacy in reasoning, have heard say that it takes more than one swallow to make a summer, and am as slow of belief in new remedies as any one, but I am fully persuaded that I have been relieved of this most troublesome disorder by the agency of the arsenical solution so timely brought to light in your valuable Journal. J. C. B.—*Cincinnati Journal of Medicine*.

A Useful Hint.—In Vienna the use of sulphate of iron as a deodorizer has had a most beneficial result. According to the *Presse*, the rats have been so effectually destroyed by the use of green vitriol, that recently Prof. Hyrtl was unable to procure a supply for experimental purposes. There is no better or cheaper substance known as a deodorizer, or, as some people call it, disinfectant; and if it results in the wholesale destruction of these pests, we would advise its use freely in our city drains.—*Canada Medical Journal*.

Mortality of First Labors.—Dr. Duncan, in the *Edinburgh Medical Journal*, declares, on the authority of statistics, that the mortality of first labors, and of puerperal fever following first labors, is about

twice the mortality attending all subsequent labors collectively; and that after the ninth labor the mortality increases with the number.—*Medical Record*.

Illegitimacy in England.—No less than 47,448 children were registered in England, in 1864, as born out of wedlock. Even this number does not represent the actual state of things. Owing to a defect in the English registration act, which does not make the registration of births compulsory, many cases are never recorded. Dr. Lankester has stated it as his deliberate judgment, that 16,000 women are living in London whose infant children have been murdered by their own hands.—*Ibid*.

The number of medical students in attendance at the Medical Department of the University and the Jefferson Medical College is much less than last year, and seems to be owing, in a great measure, to the increase in the price of tickets, which has been adopted here and in New York, and some other cities.—*Philadelphia Correspondent of New York Record*.

The New Orleans Medical Record.—We regret to see that this journal, commenced, apparently, under such favorable auspices, has entirely failed, after the issue of three numbers. We believe this is the shortest term of existence ever awarded a journal originating in our city.—*Southern Journal of the Medical Sciences*.

Dr. E. F. SMITH has been appointed as physician to the Marine Hospital at St. Louis. The Government has restored it to its legitimate object—the providing for the sick among the Western steamboat men; at present the wards contain forty-five patients.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, DECEMBER 22d, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	34	49	83
Ave. mortality of corresponding weeks for ten years, 1855—1865	38.8	39.1	78.9
Average corrected to increased population	00	00	85.58
Death of persons above 90	0	0	0

PAMPHLETS RECEIVED.—Eleventh Annual Report of the Births, Marriages and Deaths in the City of Providence, R. I., for the year 1865. By Edwin M. Snow, M.D., Superintendent of Health and City Registrar.

DEATHS IN BOSTON for the week ending Saturday noon, Dec. 22d, 83. Males, 34—Females, 49. Disease of the brain, 2—inflammation of the brain, 1—bronchitis, 2—cancer, 2—consumption, 15—convulsions, 1—croup, 6—cyanosis, 1—cystitis, 1—debility, 1—diarrhoea, 1—dysentery, 1—epilepsy, 1—erysipelas, 1—scarlet fever, 6—typhoid fever, 1—disease of the heart, 7—infantile disease, 2—intemperance, 1—intussusception, 1—disease of the kidneys, 1—congestion of the lungs, 1—inflammation of the lungs, 4—marasmus, 4—measles, 2—old age, 4—premature birth, 3—puerperal disease, 1—smallpox, 3—trismus nascentium, 1—tumor, 1—unknown, 3.

Under 5 years of age, 38—between 5 and 20 years, 4—between 20 and 40 years, 15—between 40 and 60 years, 14—above 60 years, 12. Born in the United States, 58—Ireland, 17—other places, 8.